

<b>PRE-APPEAL BRIEF REQUEST FOR REVIEW</b>		Docket Number Q89340
Mail Stop AF Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450	Application Number 10/544,206	Filed March 10, 2006
	First Named Inventor Antoine MOULIN	
	Art Unit 1793	Examiner Weiping Zhu
<p style="text-align: center;">WASHINGTON OFFICE <b>23373</b> CUSTOMER NUMBER</p>		
Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.		
This request is being filed with a notice of appeal		
The review is requested for the reasons(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.		
<input checked="" type="checkbox"/> I am an attorney or agent of record. Registration number <u>47,121</u>		
 <u>Keiko K. Takagi</u> Typed or printed name		
<u>(202) 293-7060</u> Telephone number		
<u>December 9, 2008</u> Date		

**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of

Docket No: Q89340

Antoine MOULIN

Appln. No.: 10/544,206

Group Art Unit: 1793

Confirmation No.: 8480

Examiner: Weiping Zhu

Filed: March 10, 2006

For: METHOD OF PRODUCING A COLD-ROLLED BAND OF DUAL-PHASE STEEL WITH A FERRITIC/MARTENSITIC STRUCTURE AND BAND THUS OBTAINED

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

**MAIL STOP AF - PATENTS**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

Pursuant to the Pre-Appeal Brief Conference Pilot Program, and further to the Examiner's Final Office Action dated September 10, 2008, Applicant files this Pre-Appeal Brief Request for Review. This Request is also accompanied by the filing of a Notice of Appeal.

Applicant turns now to the rejections at issue: claims 1-12 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Nakaoka et al. (US 4,336,080) in view of Chatfield et al. (US 4,159,218).

Applicants respectfully traverse the rejection and submit that a *prima facie* case of obviousness has not been established.

Claim 1 recites a process for producing a cold-rolled ferritic/martensitic dual-phase steel strip, wherein a slab, the chemical composition of which comprises, by weight:

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**  
**U.S. Application No. 10/544,206**

**Attorney Docket Q89340**

$$\begin{aligned}0.010\% \leq C &\leq 0.100\% \\0.050\% \leq Mn &\leq 1.0\% \\0.010\% \leq Cr &\leq 1.0\% \\0.010\% \leq Si &\leq 0.50\% \\0.001\% \leq P &\leq 0.20\% \\0.010\% \leq Al &\leq 0.10\% \\N \leq 0.010\%\end{aligned}$$

the balance being iron and impurities resulting from the smelting, is hot rolled, said process then comprising the steps consisting in: coiling the hot-rolled strip obtained at a temperature of between 550 and 850° C; then cold rolling the strip with a reduction ratio of between 60 and 90%; then annealing the strip continuously in the intercritical range; and cooling it down to the ambient temperature in one or more steps, the cooling rate between 600°C and the ambient temperature being between 100°C/s and 1500°C/s; and optionally tempering it at a temperature below 250°C, the annealing and cooling operations being carried out in such a way that the strip finally contains from 1 to 15% martensite.

Thus, the claimed steel contains from 1 to 15% martensite.

In contrast, the steel of Nakaoka is not martensite. The process disclosed in Nakaoka requires the step of overaging, which has a metallurgical effect to turn the eventual martensite into ferrite. Martensite is very hard and can be destroyed by the application of heat because of its metastable phase. That is, martensite is the kinetic product of rapid cooling of steel containing sufficient carbon. Since chemical process (the attainment of equilibrium) accelerates at higher temperature, martensite is easily destroyed by the application of heat. The process of Nakaoka requires overaging (i.e. the application of heat), and thus the steel of Nakaoka does not contain martensite because it is destroyed.

In addition, the Examiner asserts that Nakaoka and Chatfield disclose substantially

**PRE-APPEAL BRIEF REQUEST FOR REVIEW  
U.S. Application No. 10/544,206**

**Attorney Docket Q89340**

identical methods for producing a steel strip. However, such is not the case.

Nakaoka's steel is cold-rolled whereas Chatfield's steel is hot-rolled. Nakaoka seeks to reduce tensile strength whereas Chatfield seeks to increase tensile strength. Thus, the process of Nakaoka and Chatfield are not substantially identical.

Furthermore, the Examiner asserts that one of ordinary skill in the art would use chromium in Nakaoka to reduce the cost. However, Chatfield discloses a manganese content of 1.25-1.8% and discloses that cost factors are significantly lower than that found in a steel having an increased manganese content -- that is, more than 1.8%. Since Nakaoka discloses a manganese content of significantly lower than 1.25%, the cost would not be an overriding reason to add chromium in view of the other differences. In this regard, it is respectfully pointed out that the Examiner must consider the entire reference as a whole and that the Examiner should not ignore the portions of the reference which teach away from the claimed invention.

Moreover, an obviousness rejection cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. Based on the differences between Nakaoka and Chatfield, it is respectfully submitted that there is no *rational* reason why one of ordinary skill in the art would combine the references.

For at least the above reasons, it is respectfully submitted that there is no motivation to combine Nakaoka with Chatfield to arrive at the claimed invention with a reasonable expectation of success.

In view of the above, it is respectfully submitted that claims 1-12 are patentable over Nakaoka and Chatfield, and withdrawal of the rejection is respectfully requested.

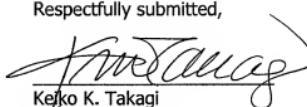
Accordingly, Applicants respectfully request reconsideration of the rejection under 35

**PRE-APPEAL BRIEF REQUEST FOR REVIEW  
U.S. Application No. 10/544,206**

**Attorney Docket Q89340**

U.S.C. § 103(a).

Respectfully submitted,

  
Keiko K. Takagi

Registration No. 47,121

SUGHRUE MION, PLLC  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

WASHINGTON OFFICE  
**23373**  
CUSTOMER NUMBER

Date: December 9, 2008